SPECIAL AWARDS & RECOGNITION

NRL is proud of its many distinguished scientists, engineers, and support staff. Here we feature some who have received awards from prestigious institutions, the Department of the Navy, and NRL.

HONORARY DOCTOR OF SCIENCE DEGREE FROM HARVARD UNIVERSITY

Dr. Isabella Karle
Laboratory for Structure of Matter

Honorary degrees are generally conferred by universities to persons of notable achievement in an academic field, the arts and letters, the professions, or public service. Dr. Karle is recognized as a pioneer in physical chemistry for her innovations and contributions to establishing the molecular structures, conformations, and assembly of molecules by electron and X-ray diffraction procedures. Her work has been recognized by a number of awards and honors, including the National Medal of Science, the Bower Award of the Franklin Institute, and the Women in Science and Engineering's Lifetime Achievement Award.

STELLAR AWARD FROM THE ROTARY NATIONAL AWARD FOR SPACE ACHIEVEMENT FOUNDATION

Dr. Russel Howard
Space Science Division

Stellar Awards recognize outstanding individuals and teams from industry and government whose accomplishments hold the greatest promise for furthering future activities in space. Dr. Howard, whose principal area of science is coronal imagery and solar-terrestrial relations, was recognized for "contributions to imaging of the solar corona and demonstrating the relationship of coronal mass ejections (CMEs) to geomagnetic storms. Dr. Howard has spent more than three decades in this discipline and has contributed to almost every significant advance in both hardware and observations. His leadership of the LASCO program has led directly to the current capability for predicting geomagnetic storms with 2-3 days warning."

HONORARY PROFESSOR AT THE UNIVERSITY OF WALES

Dr. Elaine Oran
Laboratory for Computational Physics and Fluid Dynamics

Dr. Oran has been appointed to the position of Honorary Professor, University of Wales, for her distinguished scholarship in the fields of shock waves and combustion. This award was based on the recognition of her contributions to this field and her collaborations with staff at the University of Wales. As part of this award, she will give a public lecture in Aberystwyth, Wales, UK, in May 2002.

2000 ZELDOVICH SILVER MEDAL

Dr. Stephen Eckermann
Space Science Division

The Zeldovich Silver Medal is an honor conferred by the Russian Academy of Sciences and the Committee on Space Research (COSPAR) to young scientists for excellence and achievements. COSPAR presents a Zeldovich medal to one member in each of its nine Commissions every two years. Dr. Eckermann was the recipient from Scientific Commission C, which works to stimulate space study of the upper atmospheres of the Earth and planets. Dr. Eckermann was recognized for "significant contributions to the observational study and theoretical modeling of the dynamics of the Earth's upper atmosphere (stratosphere and mesosphere), with particular emphasis on understanding the effects of gravity waves and their role in modifying the energetics and trace species distributions of the middle atmosphere."

AMERICAN SOCIETY FOR MATERIALS DISTINGUISHED LIFE MEMBER AWARD

Dr. Bhatka Rath
Materials Science and Component Technology Directorate

The American Society for Materials, ASM International, established the Distinguished Life Membership Award in 1954 to recognize leaders who have devoted their time, knowledge, and abilities for the advancement of materials technology and who have made sustained contributions to the materials engineering profession. Dr. Rath was elected for the award and cited "for dedicated and distinguished leadership in the world of materials community."

THERMEC 2000 DISTINGUISHED AWARD

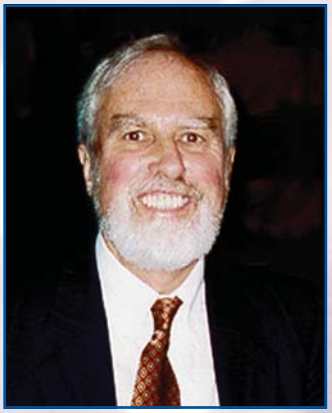
THERMEC 2000 is an international conference devoted to processing and manufacturing of advanced materials. The conference is co-sponsored jointly by the Materials Societies of USA, Japan, Germany, France, China, India, and Korea. The Board of Directors representing the societies of each participating nation nominate and elect between four to six distinguished scientists and engineers for their innovation and leadership in materials research. Dr. Rath was cited for his "innovation and leadership in materials research relevant to the U.S. Navy and in recognition of outstanding achievements as a senior executive."

2000 AMERICAN SOCIETY FOR MATERIALS INTERNATIONAL BURGESS MEMORIAL AWARD

Dr. Khershed Cooper
Materials Science and Technology Division

This award is given to a member of the Washington, DC Chapter in recognition of outstanding achievements in the field of metallurgy, materials, or mechanics made within the 5-year period prior to the award. It is named after the founder and first chairman, George Kimball Burgess, who was the first Chief of the Metallurgy Division at the National Bureau of Standards (now NIST). The Burgess Award is the highest award for scientific achievement given by the chapter. Dr. Cooper was cited for "his contributions to the fields of liquid metal atomization, superplastic behavior of high carbon steels, and artificial diamond planarization."

AMERICAN METEOROLOGY SOCIETY JULE G. CHARNEY AWARD



Dr. Roger Daley
Former University Corp. for Atmospheric Research Distinguished Visiting Scientist - Marine Meteorology Division

The Jule G. Charney Award is granted to individuals in recognition of highly significant research or development achievement in the atmospheric or hydrological sciences. The award was established in 1969 and originally was called the "Second Half-Century Award." In 1982 it was renamed in honor of Jule Charney, who played a major role in establishing the theoretical framework on which numerical weather prediction is based. After retiring from the Canadian Public Service, Dr. Daley took up a position in the Marine Meteorology Division with the Atmospheric Variational Data Assimilation Section developing NAVDAS (NRL Atmospheric Variational Data Assimilation System). This three-dimensional data assimilation system for global, regional, and shipboard data assimilation is now undergoing pre-implementation tuning and calibration. Work has begun on the development of a four-dimensional follow-on, to be called NAVDAS A/R, or the NAVDAS Accelerated Representer algorithm.

2000 NATIONAL DEFENSE INDUSTRIAL ASSOCIATION (NDIA) BRONZE MEDAL

Dr. Brian Houston
Acoustics Division

This award is given to individuals who have made significant contributions to the field of undersea warfare, especially during the year in which the award is granted. Dr. Houston received the award "for his innovations in the field of underwater acoustics which have yielded significant advances in an array of vital undersea warfare technologies." These include submarine-related stealth design and sound control, torpedo noise mechanism assessment and control, mine classification, threat submarine target strength assessment and exploitation, and interior noise mechanism diagnosis and control.

2001 SIGMA XI PURE SCIENCE AWARD

Dr. Brett Dunlap
Chemistry Division

Dr. Dunlap received this award for his "contributions to quantum chemistry through the development of Gaussian-based density-functional computational methods for use in cluster science. He has published over 130 papers (more than 75 in the last decade) and this work has been cited over 4,200 times. His research has long enjoyed external Office of Naval Research (ONR) support." According to the nomination, Dr. Dunlap's computational methods — essential in meeting ONR's goal of Navy materials by design — are used worldwide. His work has been important in bringing accurate density-functional computations on large systems to chemistry.

SIGMA XI 2001 APPLIED SCIENCE AWARD

Dr. James Butler
Chemistry Division

Dr. Butler was recognized for "his exceptional work on chemical vapor processing of diamond materials for electronic device applications. Dr. Butler's research over 20 years has developed an understanding of an exploited the complex processes of diamond chemical vapor deposition. He constructed a unique NRL facility that supplies diamond to numerous international academic and industrial investigators." According to the nomination, Dr. Butler was recognized internationally for his work in the area of diamond chemical vapor deposition. The facility he has developed at NRL is used for the growth, characterization, and processing of diamond materials. These materials will also serve NRL and the Navy in the development of high-voltage power switches, electronics, and thermal management hardware for the all-electric ship of the future.

2001 SIGMA XI YOUNG INVESTIGATOR AWARD

Dr. William Armatucci
Plasma Physics Division

Dr. Armatucci is recognized for his work in improving the understanding of the important role played by localized electric fields in ionospheric and magnetospheric wave generation, plasma energization, and particle transport, and has performed research leading to innovations in plasma diagnostics.

2001 SIGMA XI YOUNG INVESTIGATOR AWARD

Dr. Armand Rosenberg
Optical Sciences Division

Dr. Rosenberg is recognized for "significantly advancing the knowledge of photonic band-gap materials, thereby bringing their promising applications closer to reality. He has demonstrated innovative ways of fabricating materials which exhibit photonic band-gap effects in the optical region, and has advanced the understanding of photon propagation in these materials."

2001 PRESIDENTIAL RANK OF MERITORIOUS EXECUTIVE AWARD

Dr. Eric O. Hartwig
Acting Director of Research

The Presidential Rank of Meritorious Executive Award is presented to individuals who display strong leadership, achieve results, and consistently demonstrate strength, integrity, and a relentless commitment to excellence in public service. This award is presented to leaders for sustained accomplishments. Dr. Hartwig was recognized for "distinguished leadership in the geophysical sciences that has had a profound impact on these programs at the international and national levels."

2001 PRESIDENTIAL RANK OF MERITORIOUS EXECUTIVE AWARD

Dr. Joel Schnur
Center for Bio/Molecular Science and Engineering

The Presidential Rank of Meritorious Executive Award is presented to individuals who display strong leadership, achieve results, and consistently demonstrate strength, integrity, and a relentless commitment to excellence in public service. This award is presented to leaders for sustained accomplishments. The award nomination noted that Dr. Schnur's "pioneering leadership in the development of the field of bio/molecular science and technology has led to critical new understanding of diverse areas of science and the connections between them which are important for the development of new DOD technology in the area of biological warfare defense and advanced bioelectronic materials."

WOMEN OF COLOR TECHNOLOGY AWARD IN GOVERNMENT AND DEFENSE FOR LIFETIME ACHIEVEMENT

Dr. Patricia Tatem
Navy Technology Center for Safety and Survivability

The Career Communications Group, founded almost 20 years ago with a unique mission to promote significant minority achievement in engineering, science, and technology, presented its Lifetime Achievement award to Dr. Tatem. According to the citation, "This year's Women of Color honorees come from corporations and government agencies that are doing something about the 'glass ceiling' that has limited women to 3 to 5 percent of the executive force of the Fortune 500; and the 'Digital Divide,' which threatens to marginalize talented minorities."

VICE ADMIRAL HAROLD G. BOWEN AWARD FOR PATENTED INVENTIONS

Dr. Dennis Hardy and Ms. Erna Beal
Chemistry Division

The Bowen Award recognizes a patented invention that has had a significant impact on the operation of the Navy as measured by the extent of adoption for Navy use and cost savings, increased military capability, and/or increased quality of life of Navy personnel. Dr. Hardy and Ms. Beal invented a method for assessing distillate fuel stability that has reduced the number of incidents in which Navy vessels have shut down or failed to achieve full power because of contaminants in the fuel, which result from chemical reactions that take place in the fuels while they are stored for extended periods of time. The NRL fuel assessment method has saved the Navy over $100 million in replacement fuel, filtering, and clean-up costs and has increased operational and combat readiness. In addition, the method has been adopted as an American Society for the Testing of Materials standard.

HOMER W. CARHART AWARD FOR FIRE PROTECTION EXCELLENCE

DCC Gary Best
Crew Member of USS *Inchon*

The Homer W. Carhart Award for Fire Protection Excellence was established by the Chief of Naval Operations in 1994, to recognize Navy Department personnel for superior achievements in the areas of safety and shipboard survivability excellence. Chief Best was recognized for his "superior achievement in promoting safety and survivability excellence in the United States Navy through exemplary leadership and demonstrated professional standards." He was selected based on his leadership role in damage control and firefighting safety. As the leading petty officer of the damage control shop, he was commended for his outstanding performance, professionalism, technical expertise, and training methods. His work performance was recognized as a motivating factor in promoting higher levels of damage control excellence within his shop and throughout the ship.

2000 FRED W. ELLERSICK MILCOM AWARD FOR BEST PAPER IN THE UNCLASSIFIED TECHNICAL PROGRAM

Dr. Anthony Ephremides, Dr. Jeffrey Wieselthier, and Dr. Gam Nguyen
Information Technology Division

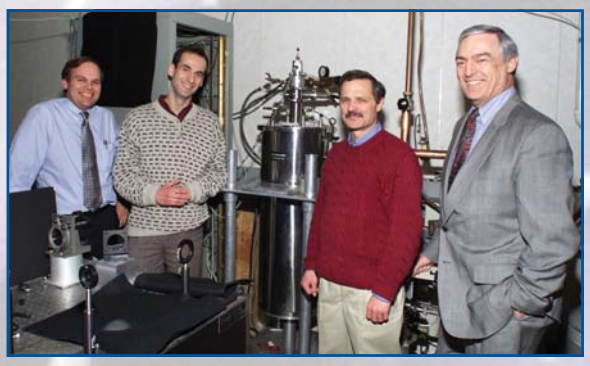
Drs. Ephremides, Wieselthier, and Nguyen received the Fred W. Ellersick MILCOM Award for Best Paper in the Unclassified Program for their paper titled, "Algorithms for Bandwidth Limited Energy-Efficient Wireless Broadcasting and Multi-Casting." This paper was selected for the award from approximately 200 accepted papers.

NAVY SUPERIOR CIVILIAN SERVICE AWARD

Ms. Betty Duffield
Human Resources Office

Ms. Duffield was presented the Navy Superior Civilian Service Award for her role in the NRL Personnel Management Demonstration Project. She was cited for her critical role in the establishment and implementation of the Demo Project. According to the award nomination, "Ms. Duffield's critical contributions to the NRL Demo Project include her roles as project manager and technical expert. She has helped to create a more flexible and responsive personnel system, thus enhancing NRL's ability to continue hiring, retaining, and motivating the high quality talent necessary to perform its mission as the Navy and Marine Corps Corporate Laboratory."

FEDERAL LABORATORY CONSORTIUM AWARD FOR EXCELLENCE IN TECHNOLOGY TRANSFER



Dr. Craig Hoffman, Dr. Igor Vurgaftman, Dr. Jerry Meyer, and Dr. Filbert Bartoli
Optical Sciences Division

The award recognizes employees for outstanding work that has led to the successful transfer of technology developed at a Federal laboratory. Drs. Meyer, Hoffman, Bartoli, and Vurgaftman were recognized for their successful transfer of the Quantum Mobility Spectrum Analysis (QMSA) technology to a commercial product. QMSA, which allows automated, accurate, and simultaneous characterization of the density and mobility of multiple charge carriers in semiconductors and other materials, was developed by NRL in collaboration with researchers at the University of Western Australia. Their marketing efforts led to a fruitful contact with LakeShore Cryotronics, Inc., a developer and supplier of technology for property measurement and process control, including electronic transport measurement systems.

FEDERAL LABORATORY CONSORTIUM AWARD FOR EXCELLENCE IN TECHNOLOGY TRANSFER

Mr. Vincent Park
Formerly of the Information Technology Division

The award recognizes employees for outstanding work that has led to the successful transfer of technology developed at a Federal laboratory. Mr. Park was recognized for his "participation in the transfer of the Temporally Ordered Routing Algorithm (TORA)." TORA supports the extension of Internet-type services to users on the move or in remote locations. Mr. Park not only took steps to see that appropriate patent protection was obtained, but also pursued standardization of protocol by participating in the Internet Engineering Task Force. Following Mr. Park's initial contacts, Nova Engineering, Inc. licensed the TORA inventions and incorporated the technology into NovaRoam 900, a wireless router product.

FEDERAL LABORATORY CONSORTIUM AWARD FOR EXCELLENCE IN TECHNOLOGY TRANSFER

Prof. Chao Lu (Towson University), Dr. Abraham Schultz, Ms. Amy O'Brien (Optical Sciences Division), Dr. John E. Tucker, Prof. Lawrence Tankersley (U.S. Naval Academy), Mr. Jefferson M. Willey, Dr. John F. Reintjes, Mr. Paul Howard (P.L. Enterprise, Inc.), and Mr. Scott Thomas (American Communications Systems)

Optical Sciences Division

The award recognizes employees for outstanding work that has led to the successful transfer of technology developed at a Federal laboratory. The award was given to the team in recognition of their successful transition of the LaserNet Fines technology both to the operational Navy and to commercial production. LaserNet Fines is an all-optical method for monitoring and analyzing wear debris in engine lubricating fluid. The development of the underlying technology for LaserNet Fines was supported by the Navy for application in Naval ships and aircraft. The transition of the technology from the laboratory to a commercial instrument was accelerated through an integrated product development process in conjunction with Lockheed Martin Naval Electronics & Surveillance Systems Division. Lockheed Martin has subsequently licensed the technology for commercial development. The instruments have a potential to save millions of dollars a year in the military and commercial sector not only by reducing the incidence of failures, but also by enabling the implementation of condition-based maintenance programs in which maintenance action is scheduled only for equipment shown by LaserNet Fines to have signs of mechanical faults.

FEDERAL LABORATORY CONSORTIUM AWARD FOR EXCELLENCE IN TECHNOLOGY TRANSFER

Dr. Richard J. Colton, Dr. David A. Kidwell, (not pictured: Dr. Gil Lee, Dr. David Baselt, and Dr. John-Bruce Green)

Former and current members of the Chemistry Division

The award recognizes employees for outstanding work that has led to the successful transfer of technology developed at a Federal laboratory. Drs. Meyer, Hoffman, Bartoli, and Vurgaftman were recognized for their successful transfer of the Quantum Mobility Spectrum Analysis (QMSA) technology to a commercial product. QMSA, which allows automated, accurate, and simultaneous characterization of the density and mobility of multiple charge carriers in semiconductors and other materials, was developed by NRL in collaboration with researchers at the University of Western Australia. Their marketing efforts led to a fruitful contact with LakeShore Cryotronics, Inc., a developer and supplier of technology for property measurement and process control, including electronic transport measurement systems.

INTERNATIONAL SYMPOSIUM ON AEROGELS YOUNG INVESTIGATOR AWARD

Dr. Jeffrey W. Long
Chemistry Division

This award recognizes young, talented scientists, under the age of 35, who have made outstanding contributions in aerogel research. The Young Investigator Award was established "to honor and encourage young scientists whose work in aerogel research displays excellence and distinction." Dr. Long was cited as "a contributor of distinction to the multidisciplinary research that aerogel science and technology encompasses." He was also noted for applying "his expertise in electrochemistry and materials synthesis and characterization to further the understanding of electrochemical responses from electrically conductive oxide aerogels."

OFFICE OF THE SECRETARY OF DEFENSE AWARD FOR EXCELLENCE

Dr. Ruth P. Willis
Information Technology Division

Dr. Willis was presented the Office of the Secretary of Defense Award for Excellence for her outstanding performance of her duties as Human Behavior Representation (HBR) Program Manager in the Office of the Director, Defense Research and Engineering, Defense Modeling and Simulation Office. She has proven herself a consummate professional whose outstanding technical knowledge and exemplary performance enabled her to make significant contributions toward advancing the state-of-the-art of modeling human behavior and cognition. As coordinator, organizer, and catalyst, Dr. Willis has effectively laid groundwork that will lead to major improvements in the Department's use of existing and emerging technology. Her efforts provide the basis for progress in the development of generic models and representations of individual human capabilities, limitations, and performance; and in group and organizational behavior.

2001 APEX AWARDS FOR EXCELLENCE

Ms. Jonna Atkinson, Mr. Saul Oresky, and Ms. Jan Morrow
Technical Information Division

APEX Awards are based on excellence in graphic design, editorial content, and the ability to achieve overall communications excellence. The competition was exceptionally intense with some 5,100 entries. Outstanding work in each of 11 major categories was recognized by 75 Grand Awards, while 1,136 Awards of Excellence recognized exceptional entries in most of 97 subcategories. Ms. Atkinson received an award for publication excellence in the category of "annual reports printed in four color" for the *2000 NRL Review*. She coordinated the production of the *NRL Review*, composed and designed the publication electronically, and provided graphics support. Ms. Morrow and Mr. Oresky were recognized in the category of "design and layout" for *The Little Book of Big Achievements*, NRL's most popular recruiting publication.

NAVY MERITORIOUS CIVILIAN SERVICE AWARD

Mr. Mark Busse
Radar Division

Mr. Busse was recognized for his "outstanding personal contributions to signature control technology and development that have made a major contribution to successful transition of this technology to the Fleet. Also noted, Mr. Busse "has successfully taken the theoretical concepts of radar cross-section reduction out of the laboratory and applied them to the DDG-51 through his dedication as reflected by the days, weeks, and months spent aboard the DDG-51 class of ships." His many important contributions to the radar signature control of the DDG-51 class of ships have significantly enhanced ship survivability.

NAVY MERITORIOUS CIVILIAN SERVICE AWARD

Ms. Mary Ann Carpenter
Contracting Division

According to the award citation, Ms. Carpenter was recognized for "meritorious achievement and service in promoting innovation in the acquisition process." New procurement policies and procedures have been implemented and innovations in information technology have been applied to the acquisition process. Due in large part to Ms. Carpenter's efforts, NRL has not simply kept up with these changes, but has emerged as a leader in acquisition reform and electronic commerce. Her efforts in implementing web-based contracting procedures, her service on DoD and Navy-level working groups, and her adroit handling of commercial activity competitions at NRL have been remarkable contributions that are deserving of this award. She has also successfully served as contracting officer for two A-76 procurements. She has proved to be proficient in understanding and having the detailed knowledge of A-76 procedures, providing good business judgment and considerable tact and discretion on the part of the contracting officer.

NAVY MERITORIOUS CIVILIAN SERVICE AWARD

Mr. Robert Crisler
Radar Division

Mr. Crisler received this award "in recognition of his outstanding personal contributions and leadership applied to the AN/SPS-49A (V)1 radar that have made a major contribution to the successful transition of that system to operational status." The award specifically cites Mr. Crisler for his leadership role as Test Director during the factory acceptance tests and subsequent land-based and at-sea performance evaluation tests of the AN/SPS-49A (V)1 radar. Also noted is Mr. Crisler's coordination of personnel from several private companies and other government agencies in effectively meeting an accelerated delivery schedule of this new radar system to the Fleet. The new radar provides the Fleet an enhanced ability to detect and engage fast, low cross-section targets.

NAVY MERITORIOUS CIVILIAN SERVICE AWARD

Mr. Gilbert G. Fritz
Space Science Division

Mr. Fritz served as head of the Advanced Research and Global Observation Satellite (ARGOS) experiment coordination office. He provided technical contributions to and managerial oversight of three complex NRL experiments developed for the DOD ARGOS satellite. The citation reads, in part, "Mr. Fritz's outstanding managerial and technical ability guided the three experiments to successful delivery and through a difficult test phase. The three have operated with great success on orbit and have met their mission goals. A major database supporting research in astronomy, aeronomy, and applied studies is being accumulated and the results are bringing great credit to NRL. Gilbert Fritz's professionalism and loyal dedication to duty exemplify the highest traditions of the United State Naval Service."

NAVY MERITORIOUS CIVILIAN SERVICE AWARD

Mrs. Louise McDonald
Executive Directorate

Mrs. McDonald was presented this award for her outstanding performance above the normal expectations of her position as the Head of the Office of Program Administration and Policy Development. Since she took the position in 1996, she has introduced and applied more current information technology, which resulted in faster turnaround of routine office operations, producing more efficient, higher quality, and more easily accessible information. She is commended for her contributions to several special assignments particularly in the area of privatization studies. Mrs. McDonald is also noted for her role "in exercising quality control regarding the data and organizational structures that have been brought forward as part of the A76 undertaking."

NAVY MERITORIOUS CIVILIAN SERVICE AWARD

Mr. Michael J. Monsma
Tactical Electronic Warfare Division

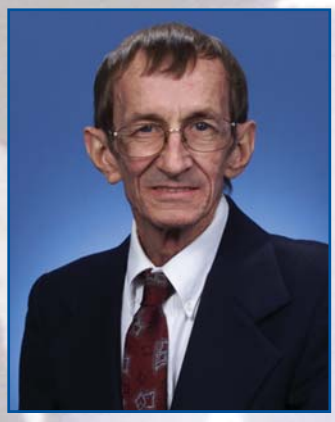
Mr. Monsma was acknowledged "for performing his duties in an exemplary and highly professional manner. His in-depth technical knowledge, initiative, and innovative research and planning significantly enhanced future Fleet Warfare capabilities and helped position the Navy to effectively transition into the 21st Century. Most significantly, he led OPNAV efforts during the recent NULKA electronic decoy Operational Evaluation, resulting in Fleet introduction of this advanced electronic warfare capability. Mr. Monsma's unflagging dedication to mission accomplishment, exceptional initiative, and loyal devotion to duty reflected great credit upon himself and were in keeping with the highest traditions of the Department of the Navy."

NAVY MERITORIOUS CIVILIAN SERVICE AWARD

Dr. Dianne Prinz
Space Science Division

This award cited Dr. Prinz for "her meritorious achievement and service while developing experimental techniques and analyses to understand the role of solar ultraviolet emissions on the Earth's upper atmosphere. Dr. Prinz was part of the core team that developed the requirements for a new type of instrument to monitor, over many years, the solar ultraviolet irradiance, which was known to vary considerably and is the source of terrestrial variability. Her successful leadership, first as project scientist and then as principal investigator, of the Solar Ultraviolet Spectral Irradiance Monitor (SUSIM) operations and data analysis teams has produced for the first time a long term, well-calibrated history of solar ultraviolet irradiances over the full activity levels of a solar cycle." The citation also notes that in addition to the scientific aspects of her work, Dr. Prinz did her utmost to communicate her enthusiasm to the public through NRL's Community Outreach program.

NAVY MERITORIOUS CIVILIAN SERVICE AWARD



Mr. Edward X. Rank
Executive Directorate

This award acknowledged Mr. Rank for his outstanding leadership role in overseeing renovation projects at NRL since he became the Research Facilities Coordinator in 1989. He has successfully coordinated and resolved a number of space issues that have inevitably confronted the Laboratory in the midst of its facilities modernization program. His careful study and identification of those buildings that were structurally worth saving and those that were not has saved the Laboratory millions in renovation and facility maintenance costs. According to the nomination, Mr. Rank was recognized for his "outstanding leadership of the most substantial renovation program in the history of the Laboratory. In addition to his routine business, he has overseen the complete renovation of eight entire buildings."

AWARD FOR EXCELLENCE IN MISSION SUPPORT

Ms. Denise Quinn
Research and Development Services Division

This award is the highest NRL award given to an NRL employee in recognition of outstanding contributions not involving the sciences or engineering. Ms. Quinn was cited for "her dedication and commitment supporting the research mission of NRL, for volunteering efforts supporting the morale and well being of all NRL employees, for her commitment to excellence in special event planning, professionally representing the Naval Research Laboratory to outside agencies and visitors, and for her unselfish commitment to NRL." As stated in the award nomination, Denise Quinn "is an example of the highest quality employee. …She exemplifies the motto of the Navy's Construction Battalion "Can Do." …She is a credit to the Laboratory in every way in which she performs her many and widely varied duties, responsibilities, and volunteer tasks."

COMMANDING OFFICER'S AWARD FOR EXCELLENCE IN SECRETARIAL SUPPORT

Ms. Catherine Cowan
Remote Sensing Division

Ms. Cowan was recognized for "the extraordinary support she has provided to the Radio/IR/Optical Sensors Branch of the Remote Sensing Division. She has taken on special responsibilities beyond those of her position in order to assist in the timely and successful execution of projects that are essential to the scientific mission of the Branch, helping to elevate its standing within the scientific and DOD communities. She has exercised her knowledge of NRL procedures and personnel, with creativity and judgment, to support the activities of the Branch and its extended scientific family in areas far beyond the normal purview of administrative support staff. She has served the Branch, the Division, and the Laboratory with skill, energy, and great reserves of cheerfulness."

COMMANDING OFFICER'S AWARD FOR ACHIEVEMENTS IN THE FIELD OF EQUAL EMPLOYMENT OPPORTUNITY

Mr. Alan Schultz
Navy Center for Applied Research in Artificial Intelligence

Mr. Schultz was nominated for his "ongoing dedication to the principles of Equal Employment Opportunity at the Naval Research Laboratory; the proactive pursuit of opportunities to create a diverse working environment; and for his leadership and ardent, long-term commitment to youth education in science." He has an outstanding record of accomplishments in securing for his section the talents of minority researchers. He has been an active participant in the NRL Mentor Program, DOD's Science and Engineering Apprenticeship Program, and the Thomas Jefferson Mentor Program. Mr. Schultz is extremely adept at encouraging interest in math and science among school students of all levels.

THE *2001 NRL REVIEW* ARTICLE AWARDS

Awards for *NRL Review* articles recognize authors who submit outstanding research articles for this prestigious scientific publication. The articles are judged on the relevance of the work to the Navy and DOD, readability to the college-graduate level, clearness and conciseness of writing, and the effective use of graphics that are interesting and informative. The following awards were presented for articles that appeared in the *2001 NRL Review*.

FEATURED RESEARCH ARTICLE

"*Phase-Coherent Underwater Acoustic Communications: Building a High-Data-Rate Wireless Communication Network in the Ocean*," Dr. Tsih C. Yang (Acoustics Division)

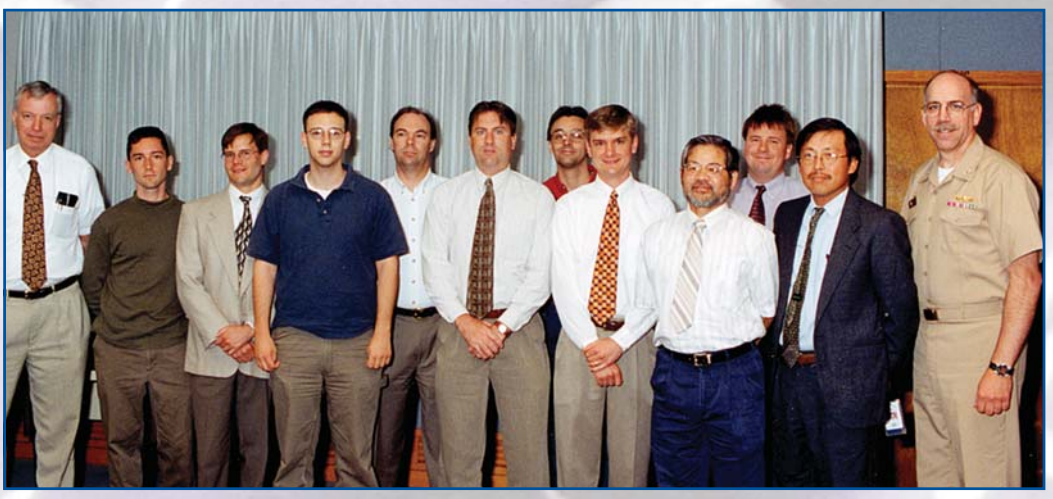
DIRECTORATE AWARDS FOR SCIENTIFIC ARTICLES

Systems Directorate: "*End User Terminal and Wearable Ground Control Station*," Mr. James G. Durbin, Mr. Brian T. Solan, and Mr. Gregory D. Stern (Tactical Electronic Warfare Division)

Materials Science and Component Technology Directorate: "*Laser Direct Writing of Living Cells and Active Biomaterials*," Dr. Bradley R. Ringeisen, Dr. Douglas B. Chrisey, (Materials Science and Technology Division), Dr. Barry Spargo, and Dr. Alberto Piqué (Chemistry Division)

Ocean and Atmospheric Science and Technology Directorate: "*Bimodal Directional Distribution of the Second Kind: Resonant Propagation of Wind-Generated Ocean Waves*," Mr. Paul A. Hwang, Dr. David W. Wang, Mr. W. Erick Rogers, Dr. James M. Kaihatu, Mr. Jim Yungel (Oceanography Division), Dr. Robert N. Swift (EG&G), and Mr. William B. Krabill (NASA)

Naval Center for Space Technology: "*Discriminating Interceptor Technology Program (DITP) Ground Testing at the KHILS Facility*," Mr. Kennety A. Clark, Mr. Timothy J. Meehan (Space Systems Development Department), Dr. Albert Bosse, Mr. H. Charlie Merk (Spacecraft Engineering Department), Mr. James R. Waterman (Optical Sciences Division), Mr. Rhoe A. "Tony" Thompson (U.S. Air Force Research Laboratory), and Mr. Walter J. Krawczyk (SAIC)



Dr. Timothy Coffey, Mr. Timothy Meehan, Mr. Kenneth Clark, Mr. Gregory Stern, Mr. James Waterman, Dr. Albert Bosse, Dr. Alberto Piqué, Dr. Bradley Ringeisen, Mr. Paul Hwang, Dr. Douglas Chrisey, Dr. David Wang, and CAPT Douglas Rau. (Not Pictured: Mr. James Durbin, Mr. Brian Solan, Dr. Barry Spargo, Mr. Erick Rogers, Dr. James Kaihatu, Mr. Jim Yungel, Dr. Robert Swift, Mr. William Krabill, Mr. Charlie Merk, Mr. Tony Thompson, and Mr. Walter Krawczyk.)

ALAN BERMAN RESEARCH PUBLICATION AND EDISON PATENT AWARDS

The Annual Research Publications Awards Dinner (ARPAD) was established in 1968 to recognize the authors of the best NRL publications each year. These awards not only honor individuals for superior scientific accomplishments in the field of naval research, but also seek to promote continued excellence in research and in its documentation. In 1982, the name of this award was changed to the Alan Berman Research Publication Awards in honor of its founder.

Of the 282 papers considered for 2001 awards, 34 were selected for recognition, representing 123 authors. The names of the authors with the titles and abstracts of their publications are listed under their respective research divisions.

NRL also recognizes patents as part of its annual publication awards program. The NRL Edison (Patent) Awards were established in January 1991 to recognize NRL employees for outstanding patents issued to NRL by the U.S. Patent and Trademark Office during the preceding calendar year. The awards recognize significant NRL contributions to science and engineering as demonstrated by the patent process that are perceived to have the greatest potential benefit to the country. Of the 86 patents considered for 2001, 3 were selected representing 8 inventors and 3 patent attorneys. They are listed under the NRL Edison (Patent) Awards.

Radar Division

Cascaded Adaptive Canceler Using Loaded SMI
Karl Gerlach

Joint Spatial and Temporal Delta-Sigma Modulation for Wideband Antenna Arrays *and Video Halftoning*
Dan P. Scholnik and Jeff O. Coleman

Information Technology Division

Variable Data Rate Voice Encoder for Voice Over Internet Protocol (VoIP)
George S. Kang

Algorithms for Energy-Efficient Multicasting in Static Ad Hoc Wireless Networks
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Center for Bio/Molecular Science and Engineering

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Space Science Division

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Deriving the Electron Density of the Solar Corona from the Inversion of Total Brightness Measurements
Andrew P. Hayes, Russell A. Howard, and Angelos Vourlidas

Space Systems Development Department

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Junho Choi and Sung Kwak

Ranger Network Modeling and Simulation: SC/SP Ground Element
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Spacecraft Engineering Department

Computation of Lie Transfer Maps for Perturbed Hamiltonian Systems
Liam M. Healy

NRL Edison (Patent) Awards

Onion Routing Network for Securely Moving Data Through Communication Networks
Michael G. Reed, Paul F. Syverson, David M. Goldschlag, and Edward Miles

Matrix Assisted Pulsed Laser Evaporation Direct Write
Douglas B. Chrisey, R. Andrew McGill, Alberto Piqué, and Ralph Webb

Method of Forming Field Emitter Cell and Array with Vertical Thin-Film-Edge Emitter
David S.Y. Hsu, Henry F. Gray, and Barry Edelberg